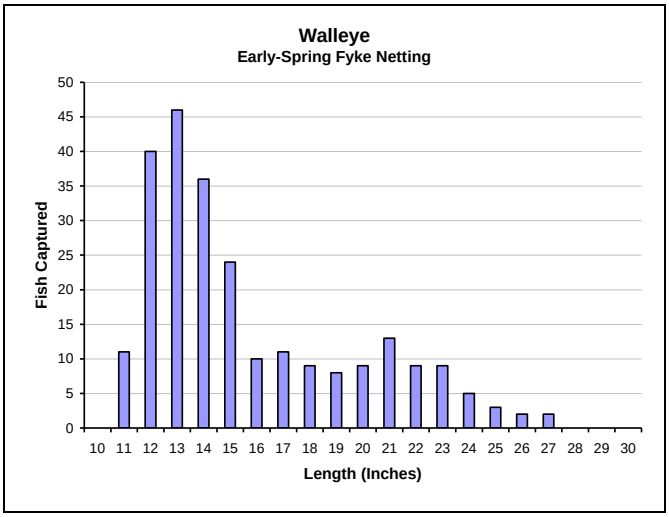
Early-Spring Fyke Netting Survey Summary
Chippewa Flowage (West Basin), Sawyer County, 2009

The Hayward DNR Fisheries Management Team conducted a fyke netting survey on the Chippewa Flowage (West Basin) during April 19-21, 2009 as part of our baseline monitoring program. Ten nets were set overnight for two nights, resulting in 20 net-nights of effort. Primary target species were walleye, muskellunge, northern pike and yellow perch, but we also obtained useful data on the status of black crappie. An electrofishing survey conducted by our team in mid May documented the status of smallmouth bass, largemouth bass, bluegill and other species. Those results are summarized in a separate survey report. Quality, preferred, and memorable sizes referenced in this summary are based on standard proportions of world record lengths developed for each species by the American Fisheries Society.

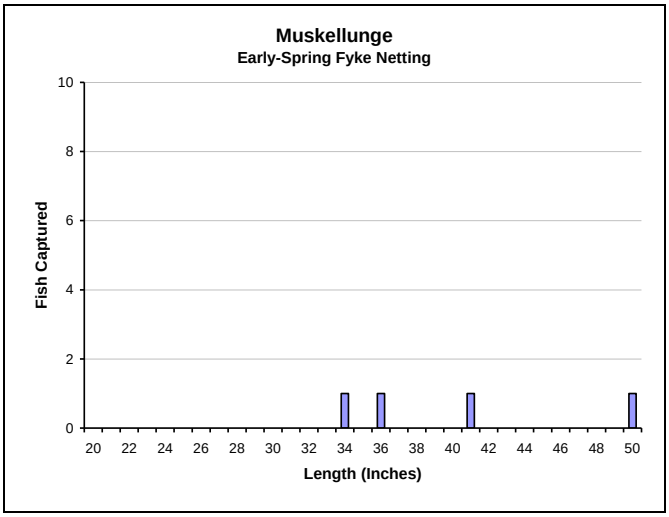
Walleye

Captured 12 per net-night ≥ 10”	
Quality Size ≥ 15”	46%
Preferred Size ≥ 20”	21%



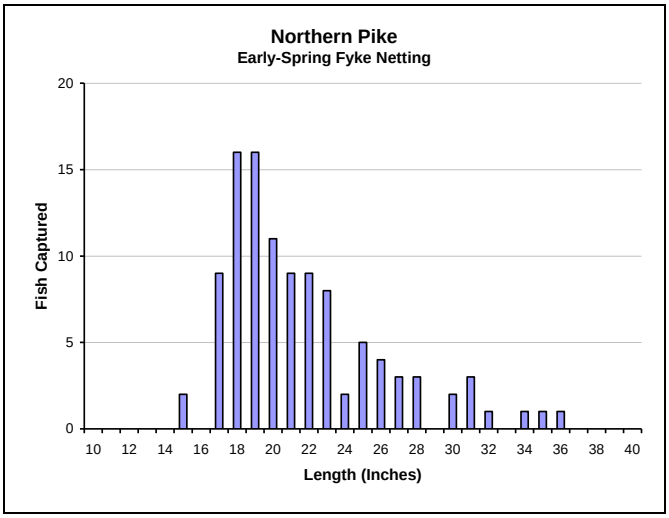
Muskellunge

Captured 0.2 per net-night ≥ 20”	
Quality Size ≥ 30”	100%
Memorable Size ≥ 42”	25%



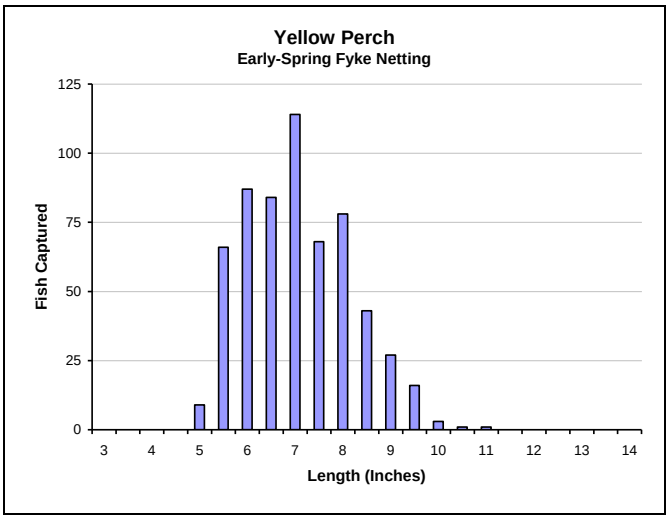
Northern Pike

Captured 5.3 per net-night ≥ 14”	
Quality Size ≥ 21”	49%
Preferred Size ≥ 28”	11%

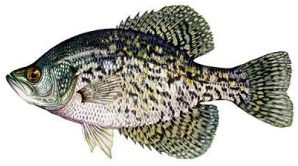


Yellow Perch

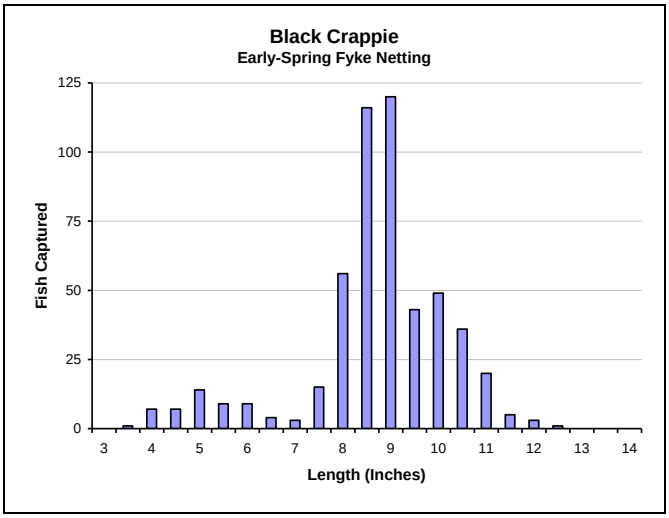
Captured 30 per net-night ≥ 5”	
Quality Size ≥ 8”	28%
Preferred Size ≥ 10”	0.8%



Black Crappie



Captured 26 per net-night ≥ 5”	
Quality Size ≥ 8”	89%
Preferred Size ≥ 10”	23%



A Note on Basin Habitat Characteristics

When interpreting these results, it is important to recognize the differences between the eastern and western basins of the Chippewa Flowage, which are connected by a narrow, navigable channel spanned by the County Highway CC bridge at The Landing.

In general, the East Basin has darker, tannin-stained water, fewer aquatic plants except during times of drought, firmer substrates (more gravel and cobble), and is more heavily influenced by the many rivers and creeks that flow into it. Because of these habitat characteristics, the East Basin provides the best habitat on the Flowage for walleye, smallmouth bass, and muskellunge. In contrast, the West Basin has clearer water, more aquatic plants, and softer substrates (more silt-bottomed bays); and it functions like a group of interconnected lakes. These habitat characteristics provide some advantages to largemouth bass and northern pike. Important panfish species (yellow perch, black crappie, and bluegill) thrive throughout the Flowage.

Summary of Results

Water temperatures during our survey were in the mid to upper 40s, allowing us to obtain a representative sample of the adult walleye population. We captured a moderate number of walleyes ≥ 10 inches (12 per net-night) – low in comparison with past decades. The high proportion of 12- to14-inch fish in our sample represents the last good walleye year class (2005) recruiting to the adult population. The proportion of quality-size fish ≥ 15 inches was 46% – above our 2007 Management Plan* target range of 20-40%. Declining capture rate and an increasing proportion of large fish confirms our assessment of low walleye recruitment in recent years based upon low electrofishing capture rates of young-of-year walleyes every fall.

Muskellunge capture rate was only 0.2 per net-night, which is far below average for northern Wisconsin (0.95 per net-night). Muskie capture rate is always lower in the West Basin than in the East Basin, but our 2009 survey may have been a week or two earlier than optimal for purposes of sampling the adult population. Despite timing issues, the impressive size of Chippewa Flowage muskellunge was apparent. Our capture rate of northern pike ≥ 14 inches was moderately high (5.3 per net-night) and had changed little since 2006 (4.7 per net-night in the West Basin), despite efforts to encourage liberal pike harvest. Pike size structure may have improved slightly in recent years; the proportion of preferred-size fish ≥ 28 inches increased from 6% in 2006 to 11% in 2009.

We captured yellow perch ≥ 5 inches at a high rate (30 per net-night) in comparison with past decades. Though most were small; a notable proportion ≥ 9 inches has begun to attract angler attention on the Flowage. Black crappie ≥ 5 inches were captured at a high rate as well (24 per net-night); most were 8 to 11 inches long and probably represented a couple very large year classes that emerged after the walleye population – and predation by walleye – began to decline several years ago. The proportion of quality-size black crappie ≥ 10 inches (23%) fell within our 2007 Management Plan target range of 20-40%, but high size-selective harvest of larger crappies by anglers may pose a challenge to increasing the number of black crappies ≥ 10 inches.

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January 10, 2011